

# PATENT SPECIFICATION

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## (54) APPARATUS FOR USE IN CASTING BOILED SWEETS

(71) We, AUGUST STORCK GMBH, a German Company, of 4802 Halle, Steinhäusen 12, Germany, do hereby declare the invention for which we pray that a Patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:—

The invention relates to apparatus for use in casting boiled sweets.

Conventional casting machines comprise a storage vessel for a flowable sugar composition, e.g. a heated hard boiled sugar syrup or like sugar mass, and metering devices connected to the storage vessel and each fitted with a dispensing nozzle. The moulds for the sweets are fed beneath the dispensing nozzles which deliver accurately metered volumes of sugar mass into the recesses of the mould.

If it is desired to cast sweets consisting of a plurality of different sugar masses this cannot be done otherwise than by first supplying one of the sugar masses into the mould and then covering this mass with a second sugar mass. Apart from the considerable cost of the apparatus required to do this, the method also has the disadvantage that the different sugar masses do not satisfactorily bond and that the resultant sweets easily break or fall apart.

According to the present invention there is provided apparatus for use in casting boiled sweets in which each sweet is cast from a plurality of different sugar masses, the apparatus comprising a plurality of storage containers for containing the respective sugar masses, and a metering device comprising a chamber having a feed connection with each storage container whereby a sugar mass from each of the containers can be fed to the chamber, an outlet nozzle connected with the chamber for charging a boiled sweet mould, and a plunger operable within the chamber to eject the sugar masses from the chamber through the nozzle.

Hence, the different sugar masses which are to be used for making a single sweet are

dispensed through a single nozzle into a mould below. The sugar masses are fused and form a smooth transition so that they are intimately joined in the cold finished sweet. In this way sugar masses of different compositions, e.g. different colours or flavours, can be combined in one sweet. With particular advantage yoghurt can be thus combined with hard boiled coloured sugar masses or with sugar masses flavoured with fruit juices.

Reference is now made to the accompanying drawings in which:—

Figure 1 is a cross section of apparatus according to the invention; and

Figure 2 is a plan view of the apparatus of Figure 1.

Referring to the drawings, conventional metering devices 2, each comprising a chamber or cylinder in which there is a vertically reciprocable plunger 7, are fitted into the bottom of a storage vessel provided with heatable walls. Outside the vessel 1 the metering devices are fitted with outlet nozzles 6 below which moulds 8 provided with recesses 9 traverse the nozzles.

The storage vessel is divided by parallel partitions 4 and 5 into three adjacent storage containers I, II and III. Each of these storage containers contains a different sugar mass, for example, chamber II may contain a white sugar mass — indicated by small circles — whereas the neighbouring chambers I and III may each contain a red sugar mass — as indicated by discontinuous lines. The masses may differ not only in colour but by any variation in composition, e.g. flavour.

The metering devices 2 form parts of the partitions 4 and 5. The lower parts of the metering devices 2 are provided on opposite sides with inlet orifices 3 and 3' so disposed that the orifices 3 communicate with storage containers I and III and both orifices 3' communicate with the centre storage container II.

When the plungers 7 retract, sugar mass is drawn into the cylinders of the metering

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devices through both orifices 3 and 3', and the different masses meet inside the cylinder. When the plunger descends, the sugar masses are both expelled through the outlet nozzle 6 into the recess 9 of the casting mould 8. In the boundary zones there will be some mixing so that there is a continuous transition between the two sugar masses.

WHAT WE CLAIM IS:—

1. Apparatus for use in casting boiled sweets in which each sweet is cast from a plurality of different sugar masses, the apparatus comprising a plurality of storage containers for containing the respective sugar masses, and a metering device comprising a chamber having a feed connection with each storage container whereby a sugar mass from each of the containers can be fed to the chamber, an outlet nozzle connected with the chamber for charging a boiled sweet mould and a plunger operable within the chamber to eject the sugar masses from the chamber through the nozzle.

2. Apparatus according to Claim 1, wherein the plunger has a suction effect in the chamber serving to draw the sugar masses into the chamber from the containers.

3. Apparatus according to Claim 1 or 2

including a plurality of said metering devices each having a chamber connected with a plurality of storage containers and each feeding a respective outlet nozzle.

4. Apparatus according to Claim 3, wherein one of the storage containers has a feed connection with more than one of the metering devices.

5. Apparatus according to Claim 4, comprising a main container partitioned to define said storage containers, each metering device defining a part of a partition and having openings at opposite sides of the partition to define said feed connections to the metering device.

6. Apparatus for use in casting boiled sweets, constructed substantially as herein described with reference to the accompanying drawings.

7. Apparatus for casting boiled sweets incorporating apparatus according to any preceding claim together with a mould associated with the or each respective outlet nozzle.

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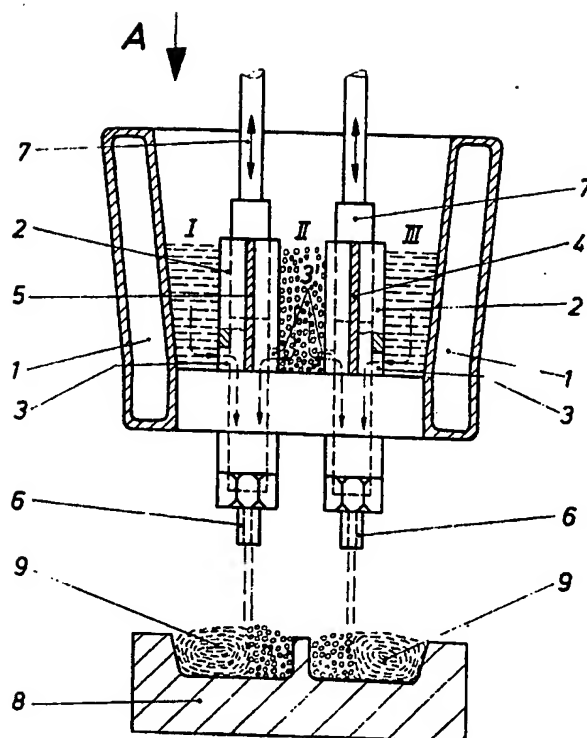


Fig. 1

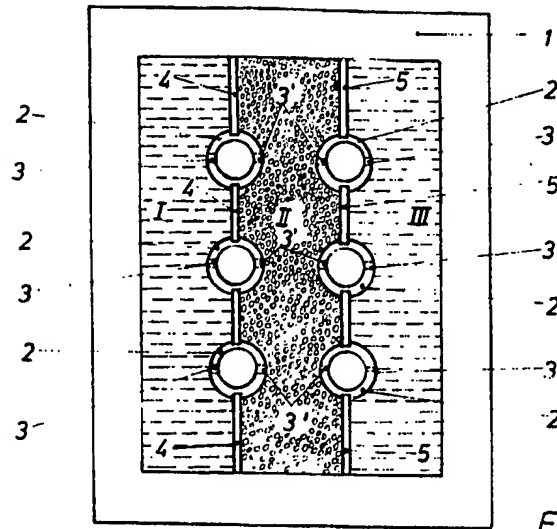


Fig. 2